COLIN TANG

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EDUCATION

The College of William & Mary   **September 2022 - May 2025**
Bachelor's, Computer Science   *GPA: 3.8*

SKILLS

Languages: Python, JavaScript, TypeScript, Java, C/C++, C#, NoSQL, SQL, HTML/CSS, Dart
Frameworks & Libraries: React.js, Vite, TailwindCSS, Node.js, Next.js, Django, Express, Flask, Flutter
Databases: MongoDB, PostgreSQL, MySQL, Redis, Firebase, Supabase
Tools & Platforms: Docker, RESTful API, AWS, Git, JIRA, Bash, Figma, Linux, NumPy, BeautifulSoup, Heroku, Vercel

PROFESSIONAL EXPERIENCE

PhotoBuddies: A Web App Connecting Photographers & Models   **Williamsburg, VA, USA**
Founder & Full Stack Developer   *June 2024 - Present*
- Developed the initial concept for PhotoBuddy, focusing on connecting photographers and models to facilitate collaboration and portfolio building.
- Built a responsive user interface with React.js and Tailwind CSS, creating over 10 interactive pages for a seamless user experience across devices.
- Designed and implemented a scalable backend using Node.js, Express, and MongoDB, establishing the database schema and business logic for efficient data management and retrieval.
- Deployed the App via Docker on Render, ensured 99.9% availability and stable performance under various traffic loads.
- Implemented Docker Image CI/CD pipelines, reducing update times from 5 minutes to 1 click through automated testing and continuous deployment.
- Leveraged Git, Jira, and Slack to manage project workflows and foster cross-functional collaboration within a team of 5.
- Project Link: https://www.photobuddies.org

Virginia Department of General Services   **Richmond, VA, USA**
Web Developer Intern   *June 2024 - August 2024*
- Increased user traffic and retention by 80% through Figma-driven designs and frontend optimization by collaborating with designers to enhance UI/UX.
- Deployed a Website Management System supporting 300+ daily content updates approved by senior leadership.
- Optimized MySQL database by restructuring schema and reducing TTL, cutting cloud disk usage by 33% and improving query performance.
- Presented project to 30+ colleagues, answering technical and non-technical questions from the Director and team.

SAIC Motor   **Shanghai, China**
Software Development Intern   *May 2023 - August 2023*
- Developed backend systems in Java with a 20-member team, delivering 3 client-specific projects.
- Collaborated cross-functionally to streamline workflows using Git, Jira, Slack, and AWS, enhancing team productivity by integrating communication, project management, and version control systems.
- Resolved high query latency by integrating MySQL and Redis caching, improving query efficiency by 40%.
- Created 10+ Bash scripts for automated database backups and version control, deployed via binlog and mysqldump on client servers.

RESEARCH EXPERIENCE

"Interpretable Routing in Disaster Response Management" Research   **Williamsburg, VA, USA**
Research Assistant @ Data Science Department   *January 2023 - February 2024*
- Researched the impact of a 3-month lockdown in Shanghai, analyzing daily lives, medical, and food needs. Modeled optimal resource allocation routes using Python and R.
- Scraped and cleaned 10,000+ data entries from a help request form using Python (NumPy, Pandas, BeautifulSoup).
- Created and presented 7 interactive analysis graphs showcasing optimal resource routes, presented to 10+ faculty and peers in a departmental seminar.
- *Link to project*